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ABSTRACT

This teaching guide for grades 4-6 focuses on the 1999-2000 United States Mint 50 State Quarters Program, which includes new quarter designs for the following states: Delaware, Pennsylvania, New Jersey, Georgia, Connecticut, Massachusetts, Maryland, South Carolina, New Hampshire, and Virginia. The guide includes six lesson plans that fit easily into the curriculum, reproducible student worksheets that coincide with each lesson, state facts and information on the new quarter designs, a U.S. map template with state outlines, and the 50 State Quarters Program 1999-2000 quarter board. (BT)

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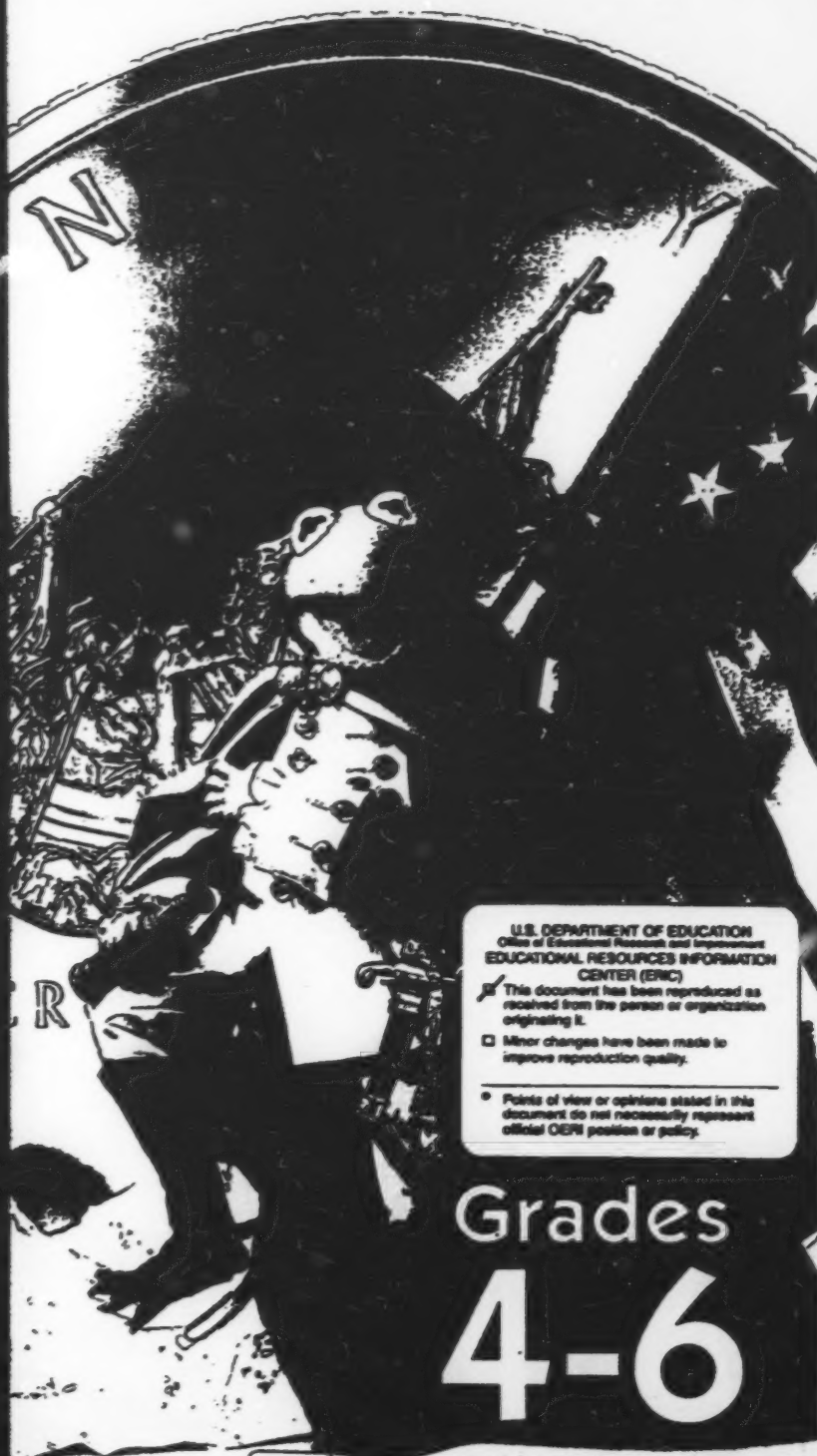
This teaching guide includes:

- A teacher-friendly lesson plan that fits into your curriculum
- Reproducible student worksheets that correlate with each lesson
- Fun facts and information on the new quarter designs
- USA map template with state outlines
- 50 State Quarters Program 1999-2000 quarter board



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The Greatest Educational Change America Has Ever Seen



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Grades 4-6

The Greatest Educational Change America Has Ever Seen



Lesson Plans for Grades 4-6

Table of Contents



OBJECTIVE:



**CURRICULUM
CONNECTIONS:**



GROUPINGS:



CLASS TIME:



PAGES:

Start with a Chart

Using information gathered from a chart.

- Mathematics
- U.S. History
- Language Arts

Individual

1 class period

2-5

I Have, Who Has?

Identifying states and their capitals.

- U.S. Geography
- U.S. History
- Language Arts

Whole group
Small groups

1 class period

6-9

In the News!

Conducting research and writing a mini-report.

- U.S. Geography
- U.S. History
- Language Arts
- Art

Individual

3 class periods

10-13

Worth the Weight

Problem solving with metric measurement.

- Mathematics
- Science

Small groups
Individual

1-2 class periods

14-17

Using a Coordinate Grid

Plotting points on a coordinate grid.

- Mathematics
- U.S. History
- Art

Small groups
Individual
Partner

2 class periods

18-21

Take a Chance

Determining the probability of a given event.

- Mathematics
- U.S. History
- Language Arts

Whole group
Small groups
Individual

1 class period

22-25

ADDITIONAL RESOURCES

State Information Pages:

50 State Quarters™ Released in 1999—Delaware, Pennsylvania, New Jersey, Georgia, Connecticut **26-27**

50 State Quarters™ Released in 2000—Massachusetts, Maryland, South Carolina, New Hampshire, Virginia **28-29**

United States of America Map Template **30**

Reproducible Coin Sheets **31-32**

50 State Quarters™ Program Release Schedule **33**

Lesson plans and other related 50 State Quarters™ Program materials are provided solely for teaching purposes. They may not be commercially distributed or distributed as a premium.



1: Start with a Chart

OBJECTIVE:

The student will synthesize information gathered from a chart. The student will choose a mathematical technique to answer questions involving addition, subtraction, and ordering of dates.



MATERIALS:

- Copies of the "Start with a Chart" worksheet (page 4), one per student
- Copies of the "States and Quarters Questions" worksheet (page 5), one per student
- Paper
- Pencil



PREPARATIONS:

- Review lesson.
- Review chart and worksheet.



GROUPING:

- Individual work



CLASS TIME:

- 1 class period



CONNECTIONS:

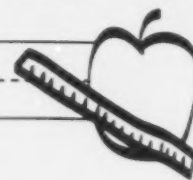
- Mathematics
- U.S. History
- Language Arts



TERMS and CONCEPTS:

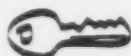
- Statehood
- Issuance
- 50 State Quarters™ Program

Using a Chart to Gather Information



STEPS:

1. Discuss the new 50 State Quarters™ Program with students, a new coin program by the U.S. Mint. Approximately every 10 weeks, the U.S. Mint is releasing a special quarter for each state, in the order the states were admitted into the United States. Each new quarter possesses a unique design that celebrates that state's heritage and special contribution to the United States.
2. Provide students with necessary materials (paper, pencil, etc.).
3. Pass out the "Start with a Chart" worksheet (page 4) and the "States and Quarters Questions" worksheet (page 5).
4. Have students use paper and pencil to answer the questions on the worksheet while referring to the chart for their answers.
5. Evaluation can take place as the teacher checks students' work for understanding.



ANSWER KEY:

- | | | |
|-------------------------|----------------------|-------------------------|
| 1. 2008 | 1912 and 1959) | 11. 1959–1787=172 years |
| 2. 5 | 8. Alaska and Hawaii | 12. Oregon and |
| 3. In the same sequence | in 1959 | Arizona |
| as they were granted | 9. a. Delaware | 13. a. No |
| statehood | b. Virginia | b. A year and 6 |
| 4. Varies | c. Arkansas | months |
| 5. Varies | d. Nebraska | 14. Varies |
| 6. 1788 (8) | e. Idaho | |
| 7. 47 years (between | 10. Varies | |



ENRICHMENT/EXTENSIONS:

Students can create their own list of questions in reference to the chart and exchange with another student.

Students can design a quarter for their home state.

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Name _____

Date _____



Start with a Chart

DIRECTIONS:

Review the chart below to answer the questions on the "States and Quarters Questions" worksheet.

Statehood Date		Statehood Date	
1999		2004	
Delaware	December 7, 1787	Michigan	January 26, 1837
Pennsylvania	December 12, 1787	Florida	March 3, 1845
New Jersey	December 18, 1787	Texas	December 29, 1845
Georgia	January 2, 1788	Iowa	December 28, 1846
Connecticut	January 9, 1788	Wisconsin	May 29, 1848
2000		2005	
Massachusetts	February 6, 1788	California	September 9, 1850
Maryland	April 28, 1788	Minnesota	May 11, 1858
South Carolina	May 23, 1788	Oregon	February 14, 1859
New Hampshire	June 21, 1788	Kansas	January 29, 1861
Virginia	June 25, 1788	West Virginia	June 20, 1863
2001		2006	
New York	July 26, 1788	Nevada	October 31, 1864
North Carolina	November 21, 1789	Nebraska	March 1, 1867
Rhode Island	May 29, 1790	Colorado	August 1, 1876
Vermont	March 4, 1791	North Dakota	November 2, 1889
Kentucky	June 1, 1792	South Dakota	November 2, 1889
2002		2007	
Tennessee	June 1, 1796	Montana	November 8, 1889
Ohio	March 1, 1803	Washington	November 11, 1889
Louisiana	April 30, 1812	Idaho	July 3, 1890
Indiana	December 11, 1816	Wyoming	July 10, 1890
Mississippi	December 10, 1817	Utah	January 4, 1896
2003		2008	
Illinois	December 3, 1818	Oklahoma	November 16, 1907
Alabama	December 14, 1819	New Mexico	January 6, 1912
Maine	March 15, 1820	Arizona	February 14, 1912
Missouri	August 10, 1821	Alaska	January 3, 1959
Arkansas	June 15, 1836	Hawaii	August 21, 1959

Name _____

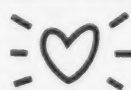
Date _____



States and Quarters Questions

DIRECTIONS:

Answer the questions below referring to the "Start with a Chart" sheet.

 1. In what year will the 50 State Quarters™ Program be complete, with all the quarters in circulation? _____	2. How many quarters are issued each year? _____	3. In what order are the quarters being issued? _____	 4. How old will you be when the 50 State Quarters™ Program is complete? _____
5. What grade will you be in when the program is complete?  _____	6. In what year were the most states admitted to the United States? _____ How many states were admitted that year? _____	7. What was the longest period of time when there were no states added to the country? _____	8. What were the last two states to be added to the United States? _____ What year were they added? _____
9. Name the following states: 1st state _____ 10th state _____ 25th state _____ 37th state _____ 43rd state _____		 10. In what year was your home state admitted into the United States? _____	11. How many years did it take for all 50 states to become the United States of America? _____
 12. Which states were admitted to the United States on Valentine's Day? _____ _____	13. Did North Carolina and South Carolina become states at the same time? _____	If not, how many years apart were they admitted to the United States? _____	14. How long after the first state was your state admitted to the United States? _____



2: I Have, Who Has?



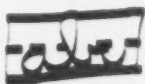
OBJECTIVE:

The students will learn states and their capitals, improving their knowledge of geography.



MATERIALS:

- Copies of reproducible "I Have, Who Has?" cards (pages 8 and 9), one set of 12 cards per group (12 students or fewer)
- Copies of the "United States of America Map Template" study sheet (page 30), one per student



PREPARATIONS:

- Review list of states and their capitals.
- Make "I Have, Who Has?" cards by copying pages 8 and 9 front-to-back and cutting cards on the dotted line.
- Write state names on the "I Have" side of the cards.
- Write state capitals at random on the "Who Has?" side of the cards.
- Laminate cards, if desired.



GROUPING:

- Whole group/small groups (12)



CLASS TIME:

- Two class periods, the first to review states' capitals, the second to play the game.
- During the second class period, each round of the game should take about 10 minutes.



CONNECTIONS:

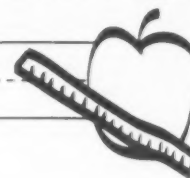
- U.S. Geography
- U.S. History
- Language Arts



TERMS and CONCEPTS:

- States
- Capitals

A Review of States and Their Capitals



STEPS:

1. Distribute the "United States of America Map Template" study sheet (page 30) and have students review the list of states and capitals.
2. Let students know that during the next class period they will play a game to review states and their capitals. Remind students to take their study sheet home with them.
3. During the next class period, explain the game procedure, provided below. Give a demonstration, if necessary.
4. Divide the class into groups of 12 or fewer. Give each group one set of "I Have, Who Has?" cards. The students should pass out the cards to the group, one per student. For groups with fewer than 12 students, some students may receive more than one card.
5. Students should play the game, as instructed. Cards can be shuffled, and the game can be replayed. It is also possible to reverse the game so that students use the "I Have" side of the card first (naming the state), and then must identify the correct state capital on the "Who Has?" side of the card.
6. You may wish to time the games to test students' progress, or hold a competition between groups.
7. To assess whether or not the students have learned the material, a quiz can be given. In most cases, students have an easier time determining the state when given the state capital, rather than vice versa.

DIRECTIONS FOR "I Have, Who Has?":

- Students place his or her cards "Who Has?" face down on the table.
- Choose a member of the group to go first.
- The game begins when the first player reads the state capital from the "Who Has?" side of his or her card; e.g., "Who has Richmond?"
- Students will then look at the "I Have" sides of their cards. The student who has the card with the corresponding state will read the "I Have" side of his or her card; e.g., "I have Virginia." Then, he or she will turn the card over and read the "Who Has?" side of the card.
- The student with the corresponding state will respond, and the game will continue in this manner until all cards have been read.



ENRICHMENT/EXTENSIONS:

"I Have, Who Has?" card templates have been provided on pages 8 and 9. Students can make "I Have, Who Has?" for all 50 states and play the game for review.

Students can create a crossword puzzle with the state names and capitals.

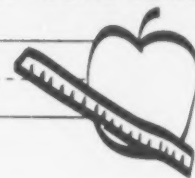
Students can create and play a game of concentration with states and capitals.



"I Have, Who Has?"

I have _____	I have _____
I have _____	I have _____
I have _____	I have _____

Game Cards



Who Has? _____	Who Has? _____
Who Has? _____	Who Has? _____
Who Has? _____	Who Has? _____



3: In the News!



OBJECTIVE:

Students will write a "newspaper article" comparing their state to another state, learning how to research information, take notes, organize material, and proofread.



MATERIALS:

- Reference resources (encyclopedias, atlases, maps, dictionaries, and other reference materials)
- Copies of the "What's the Scoop?" sheet (page 12), one per student
- Copies of the newspaper article template (page 13), one per student or as many as needed
- A notebook
- Pens/pencils
- Markers or colored pencils for illustrations



PREPARATIONS:

- Copy "What's the Scoop?" (page 12) to guide students in their research.
- Copy newspaper article template (page 13).
- Assign a different state to each student.
- Make reference resources available, and schedule time in the library for research.
- Provide markers/colored pencils for students to use in illustrations.



GROUPING:

- Individual work



CLASS TIME:

- Two to three class periods, or time to complete article at home.



CONNECTIONS:

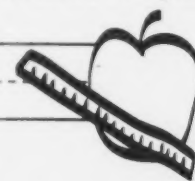
- Language Arts
- U.S. History
- U.S. Geography
- Art



TERMS and CONCEPTS:

- Boundaries
- Climate
- Natural resources
- Statehood
- State nicknames/mottoes
- Population
- Symbols

A Mini-Research Project on the Unique Characteristics of a State

**STEPS:**

1. Explain to students that they are going to become reporters for the *Quarterly News* and write a newspaper article on a state.
2. Hand out the "What's the Scoop?" worksheet (page 12). (It is not necessary that students answer all questions on the list.)
3. Have the students keep notes in which they compile the results of their research.
4. Allow students time in class or at the library to work on the project. You may also wish to assign time at home for them to complete the assignment.
5. Once students are finished researching information and taking notes, have them write a one- to two-page draft of the article.
6. Remind students that the article needs a headline and some sort of illustration or picture of the quarter they are researching. Students may also include an illustration or picture of the state flower, the state bird, the shape of the state, the state flag, or any other unique landmark or physical feature.
7. Work with students individually or in groups to help them edit their drafts for grammar, capitalization, spelling, punctuation, and clarity.
8. Have students write his or her final draft on a copy of the newspaper article template (page 13) in his or her best handwriting or on a computer.
9. Bind the final reports together into one "newspaper" and have students discuss possible names for it.
10. Students should be graded on the quality and accuracy of their information; their writing proficiency, including grammar, capitalization, spelling, punctuation, and neatness; their artwork; and the overall effort they have put into their reports. It may be a good idea to require students to hand in their research worksheets (page 10) as well.

**ENRICHMENT/EXTENSIONS:**

Students can share their reports with the class in an oral presentation.

Students can look for more in-depth resources on the state they researched, and write a "biography" of a famous American from that state.

Name _____

Date _____



What's the Scoop?

DIRECTIONS:

Good reporters ask good questions that guide them on their search for information. Use the following list of questions to guide you in your research of your assigned state. Your notes should be short but thorough, so that you can get down as much information as you can in as short a time as possible. Remember that good notes lead to good stories and articles!

1. What is the state's name?

2. What is the name of its capital?

3. In what year did it receive its statehood?

4. In what year will this state's new quarter be issued?

5. a. Who founded this state?

- b. How did the United States acquire this land?

6. What is the state flower?

7. What is the state bird?

8. Name three historic facts regarding this state.

9. Draw the state symbol and describe what it represents.

10. What is the state motto and what does it mean?

11. a. What is the state nickname?

- b. Why was it given that name?

12. Is this state larger or smaller than your state?

13. Name all the states, countries, and/or bodies of water that border this state.

14. a. What is the state population?

- b. Is that more or less than your state?

15. a. What are the state's chief natural resources?

- b. What types of industries is this state known for?

16. a. What kind of climate does this state have?

- b. How does that compare to your state?

17. What are three tourist attractions in this state?

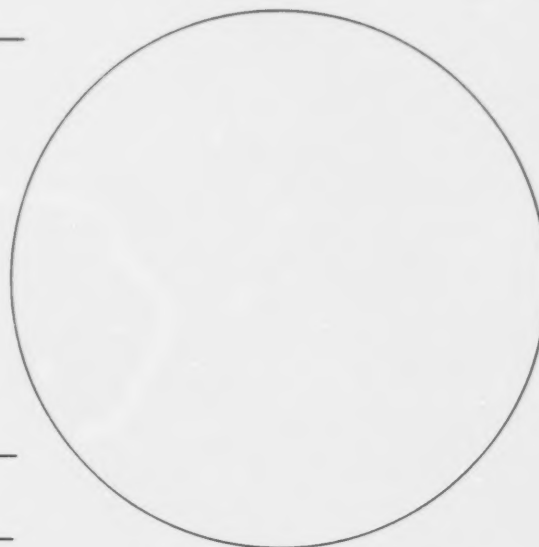
18. List three facts you find interesting about this state:

Our -/ Great -/ States

The Quarterly News

Today's date is: _____

Just the facts about



The new quarters are the greatest
educational change America has ever seen!



4: Worth the Weight



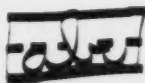
OBJECTIVE:

The student will convert metric units of measurement. The student will solve problems that involve addition, subtraction, multiplication, and/or division with decimals, as well as order decimals from least to greatest.



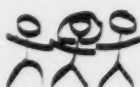
MATERIALS:

- Copies of the "Worth the Weight" chart and questions (pages 16 and 17), one per student
- Calculator
- Paper
- Pencil
- Metric scale or metric ruler (optional)



PREPARATIONS:

- Copies of the "Worth the Weight" chart and questions (pages 16 and 17), one per student.
- Read through lesson.
- Set up metric scale (if available).



GROUPING:

- Individual/small groups



CLASS TIME:

- One to two class periods



CONNECTIONS:

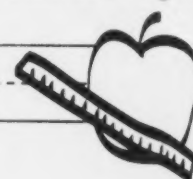
- Mathematics
- Science



TERMS and CONCEPTS:

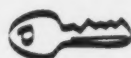
- Grams
- Millimeters
- Centimeters
- Diameter

A Lesson in Metric Measurement and Problem Solving



STEPS:

1. List lesson terms on the board and discuss metric units of measurement.
2. Give students a mental comparison: for example, a gram is a metric unit measurement of weight approximately equal to the weight of a paper clip, or 1 inch is about 2.5 centimeters.
3. Review the measurement of length using the metric units millimeters and centimeters.
4. Review with students that 10 millimeters equals 1 centimeter. Demonstrate how to convert millimeters to centimeters either by dividing the number of millimeters by 10 (example $22.56\text{mm}/10 = 2.256\text{cm}$), or by using a short-cut of moving the decimal one space to the left when converting from a smaller unit of measurement to a larger unit of measurement.
5. Demonstrate how to measure the width of a piece of paper by lining up the coins and adding their diameters. Hand out "Worth the Weight" worksheets (pages 16 and 17) and review directions.
6. Students will be evaluated by checking for accuracy in their work. Review students' work and quiz them for understanding of the concepts presented in the lesson.



ANSWER KEY:

Chart:

1. Cent: 1.905, 0.155
Nickel: 2.121, 0.195
Dime: 1.791, 0.135
Quarter: 2.426, 0.175
Half-dollar: 3.061, 0.215
Golden Dollar: 2.650, 0.201

Weight:

1. Dime, cent, nickel, quarter, Golden Dollar, half-dollar
2. 2 dimes

3. 2 nickels

4. a. 0.670 grams
b. 3.402 grams
c. 3.17 grams
5. Varies
6. Varies

Thickness:

1. Dime, cent, quarter, nickel, Golden Dollar, half-dollar
2. 32 cents, 23 half-dollars
3. 1.957cm, \$3.13
4. 50 quarters, 100 dimes

Diameter:

1. Dime, cent, nickel, quarter, Golden Dollar, half-dollar
 2. String A, String B
 3. 9 quarters, 12 dimes, 11 cents (with an $8\frac{1}{2} \times 11$ sheet of paper)
- NOTE: Answers are the same in centimeters or inches.*



ENRICHMENT/EXTENSIONS:

Students can come up with an additional five questions related to the information found in the chart, and then quiz a classmate for extra credit.

Students can weigh the coins using a metric measuring device or convert the measurements into U.S. customary units of measurement.

Name _____

Date _____



Worth the Weight—Part 1

DIRECTIONS:

Convert the measurements from millimeters to centimeters for both the diameter and thickness columns in the space provided in the chart.

Coin Denomination	Weight	Diameter in Inches	Diameter in Millimeters	Thickness
 Cent	2.500 grams	0.750 inches	19.05 mm _____ cm	1.55 mm _____ cm
 Nickel	5.000 grams	0.835 inches	21.21 mm _____ cm	1.95 mm _____ cm
 Dime	2.268 grams	0.705 inches	17.91 mm _____ cm	1.35 mm _____ cm
 Quarter	5.670 grams	0.955 inches	24.26 mm _____ cm	1.75 mm _____ cm
 Half-Dollar	11.340 grams	1.205 inches	30.61 mm _____ cm	2.15 mm _____ cm
 Golden Dollar	8.100 grams	1.043 inches	26.50 mm _____ cm	2.01 mm _____ cm

How to Convert Centimeters and Millimeters



Name _____

Date _____



Worth the Weight—Part 2

DIRECTIONS: Refer to the "Worth the Weight" chart to help you answer the following questions.

Questions Regarding Weight:

- Order the coins according to their weight from **least** to **greatest**.
 1.) _____ 4.) _____
 2.) _____ 5.) _____
 3.) _____ 6.) _____
- Approximate the number of dimes it would take to equal the weight of 1 quarter. dimes
- About how many nickels would it take to equal the weight of a Golden Dollar? nickels
- About how much more does a quarter weigh than:
 a.) A nickel; _____ gm
 b.) A dime; _____ gm
 c.) A cent; _____ gm
- List three coin combinations for a dollar and include the total weight for each combination.
 1.) _____ gm
 2.) _____ gm
 3.) _____ gm
- What coin combination for a dollar would be the:
Heaviest? _____

Lightest? _____

Questions Regarding Thickness:

- Place the coins in order of their thickness from **least** to **greatest**.
 1.) _____ 4.) _____
 2.) _____ 5.) _____
 3.) _____ 6.) _____

- About how many cents would it take to make a stack **5 centimeters** high? cents

How many half-dollars? half-dollars

- If you stacked 2 Golden Dollars, 4 quarters, 2 nickels, and 3 cents, how high would your stack be in **centimeters**? cm

How much money would you have? \$

- Which stack would be more valuable:** a stack of 100 dimes or a stack of 50 quarters?
Circle: Dimes **or** Quarters

Which stack would be higher?

Circle: Dimes **or** Quarters

Questions Regarding Diameter:

- Arrange the coins by their diameter from **least** to **greatest**.
 1.) _____ 4.) _____
 2.) _____ 5.) _____
 3.) _____ 6.) _____
- If you have two strings of coins such as:
String A: 3 quarters, 4 nickels, and 8 cents, and
String B: 1 Golden Dollar, 1 half-dollar, and 5 dimes, and you laid them side by side,
 a.) Which set would be longer?
Circle: String A **or** String B
 b.) Which set would be more valuable?
Circle: String A **or** String B

- If you were to measure the width of this piece of paper laying the coins side by side:
 a.) About how many quarters would it take? _____
 b.) About how many dimes? _____
 c.) About how many cents? _____

Hint! An 8½ inch sheet of paper = 21.5cm



5: Using a Coordinate Grid



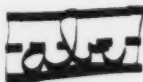
OBJECTIVE:

The student will manipulate ordered pairs in the first quadrant of a coordinate plane.



MATERIALS:

- "Coordinate Grid" worksheet (page 20), one per student
- Paper
- Pencil
- "Enlarge a Quarter" worksheet (page 21), one per student
- One picture of a quarter, enlarged (see "Reproducible Coin Sheets," pages 31 and 32)
- Markers or crayons
- Rulers



PREPARATIONS:

- Copy the "Coordinate Grid" worksheet (page 20) and the "Enlarge a Quarter" worksheet (page 21).
- Enlarge a picture of a quarter for display.
- Using a ruler, draw a grid over the quarter with a black marker.



GROUPING:

- Small groups/partner work
- Individual work



CLASS TIME:

- Two class periods



CONNECTIONS:

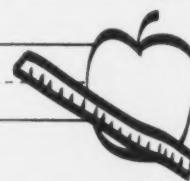
- Mathematics
- U.S. History
- Art



TERMS and CONCEPTS:

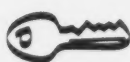
- Coordinate grid
- Coordinate plane
- Ordered pairs
- Horizontal
- Vertical

A Lesson Demonstrating Grids and Ordered Numbers



STEPS:

1. Put list of terms on the board and review definitions.
2. Demonstrate that finding an ordered pair on a grid (5,4) would be 5 over to the right (horizontally) and 4 up (vertically). Pass out the "Coordinate Grid" worksheet (page 20) and ask students to complete it.
3. Display the enlarged picture of the quarter with the grid. Demonstrate how to enlarge the picture on the board as follows:
 - a. Measure the distance between grid lines.
 - b. Multiply the distance between grid lines by three, and draw a larger grid on the board.
 - c. Transfer the image from the paper to the board by drawing the contents of each grid block in the appropriate box on the board.
4. Distribute the "Enlarge a Quarter" worksheet (page 21). Have students use a pencil and a ruler to draw in grid lines (to make a grid five boxes across, and five boxes down, gridlines should be three centimeters apart). *NOTE: For younger students, you may wish to draw in gridlines before copying sheets.*
5. Students will enlarge the picture, using the grid as a guide.
6. Students can erase the grid lines, and then color in their picture. These pictures can be displayed in the classroom.



ANSWER KEY:

What do you call a person who collects coins? NUMISMATIST



ENRICHMENT/EXTENSIONS:

Students can create a picture (e.g., a tree, a star) or design made up of points plotted on a grid, and determine the ordered pair for each point. The student can then read the ordered pairs to a partner, who will plot them on a grid, connecting the dots to achieve the same picture.

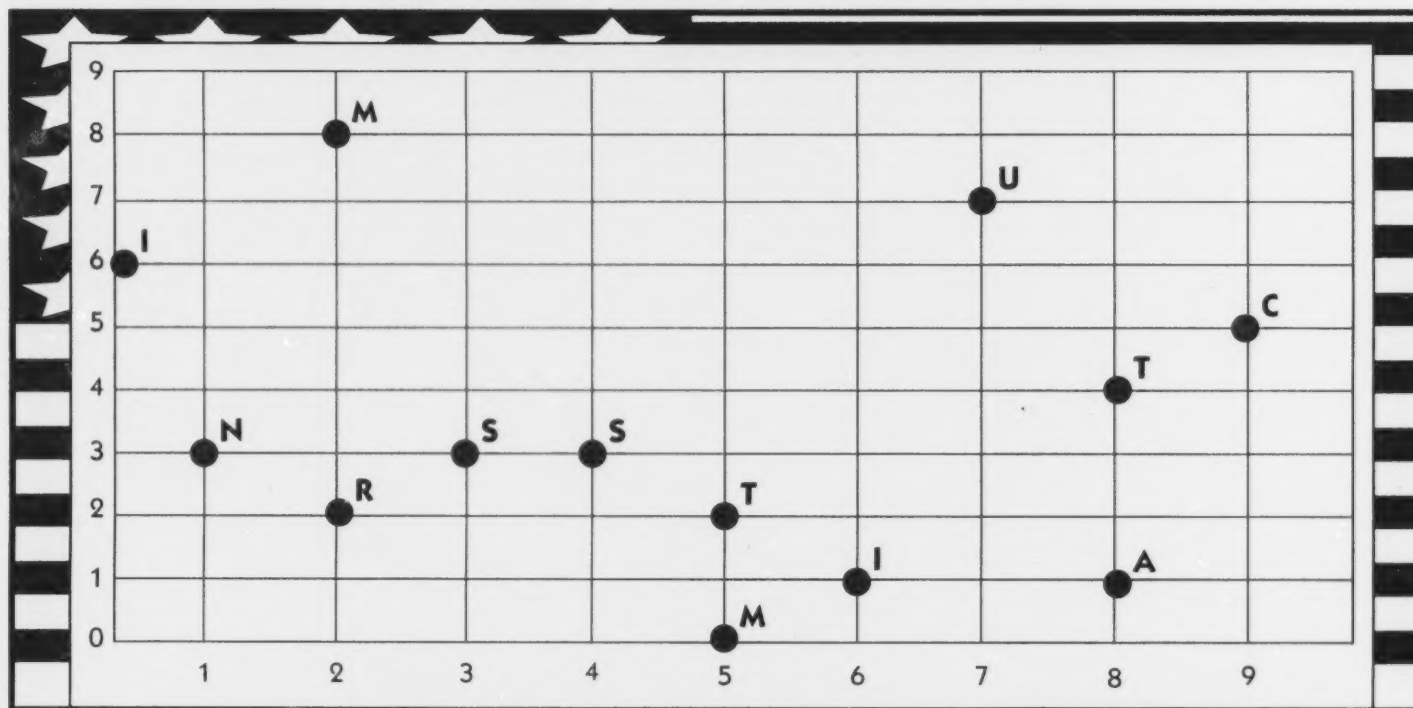
Students can create their own coordinate grid puzzle, like that on page 20. Students can write a question referring to some aspect of the lesson, and then "hide" the answer in a grid. By assigning a letter to various points in the grid, and then listing the ordered pairs in the correct order, students will make a puzzle for a partner to decipher.



Using a Coordinate Grid

DIRECTIONS:

Below is a list of ordered pairs. Find the exact point for each set of ordered pairs. At each point, there is a letter. As you find each point, write down the letter in the space provided:



What do you call a person who collects coins?

_____ (1, 3) _____ (7, 7) _____ (2, 8) _____ (6, 1) _____ (4, 3) _____ (5, 0) _____ (8, 1) _____ (5, 2) _____ (0, 6) _____ (3, 3) _____ (8, 4)

Name _____

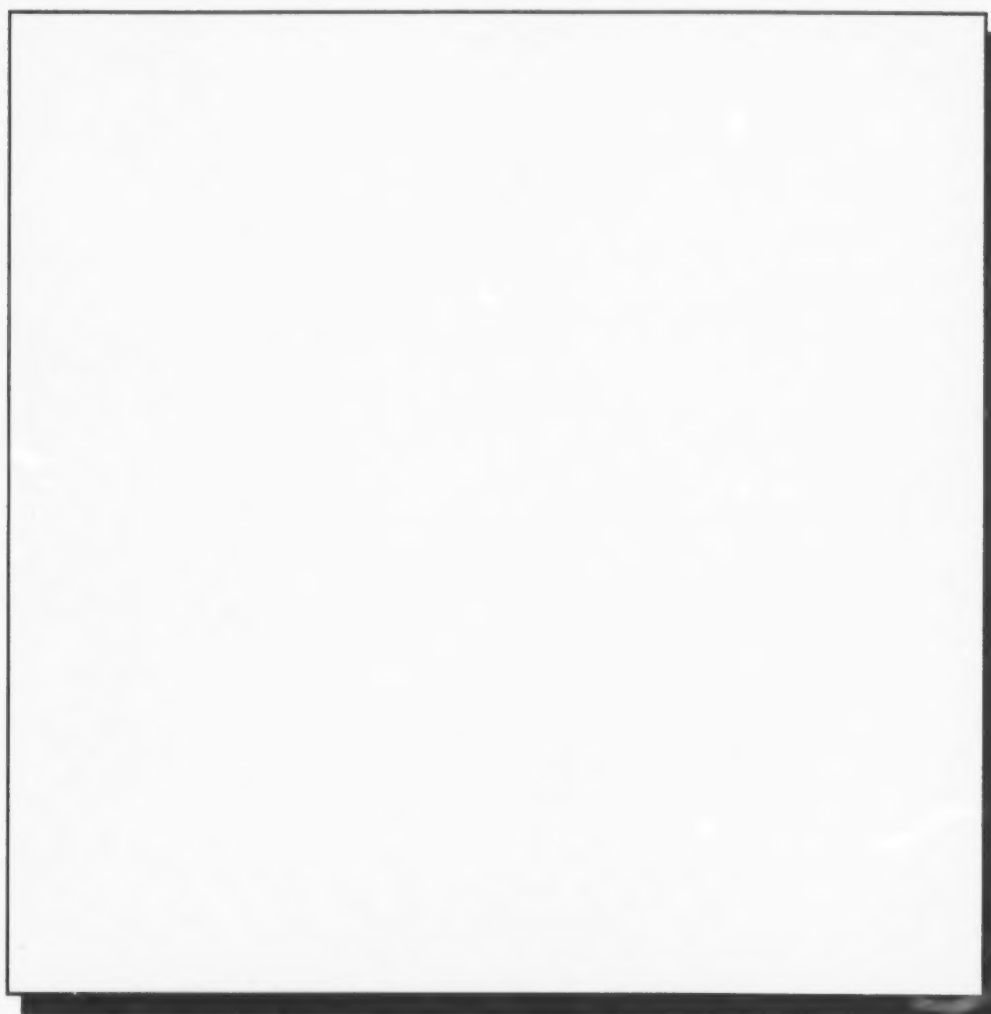
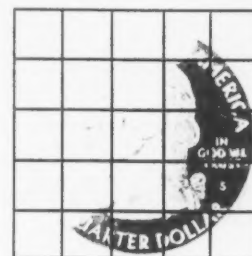
Date _____



Enlarge a Quarter

DIRECTIONS:

First, figure out how many times bigger the picture can be to fit in the large box below. Using a pencil, draw grid lines for the large box. Then, use these grid lines to help you enlarge the picture to fit the box. When you are finished, you can erase the gridlines and color your quarter.



Hint: The white box is 15cm tall by 15cm wide.



6: Take a Chance



OBJECTIVE:

The student will determine the probability of a given event using concrete examples. Students will describe events using terms such as "likely," "unlikely," "certain," and "impossible." The student will convert fractions to decimals, decimals to percents, and percents to fractions.



MATERIALS:

- Several bags with 8 quarters (each can use real coins or cut out coins from the "Reproducible Coin Sheets," pages 31 and 32):
 - 1 eagle quarter
 - 7 new quarters: (All 5 from 1999 and any two from 2000)
- Paper
- Pencil
- Calculator (optional)
- "Take a Chance" worksheets (pages 24 and 25), one per student



PREPARATIONS:

- Prepare coins (either real or cut outs from pages 31 and 32).
- Write key terms on the board (likely, unlikely, certain, and impossible).
- Pass out "Take a Chance" worksheets (pages 24 and 25).



GROUPING:

- Small groups/entire class
- Individual work (optional)



CLASS TIME:

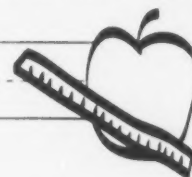
- 1 class period



CONNECTIONS:

- Mathematics
- U.S. History
- Language Arts

A Lesson on Probability



TERMS and CONCEPTS:

- Probability
- Impossible
- Likely
- Certain
- Unlikely



STEPS:

1. Introduce the activity by asking students if they have ever played a game involving chance. What is another name for "chance"? What does the word "probability" mean?
2. Discuss various games and determine if they involve chance or strategy.
3. Discuss terms on board. Define as a class.
4. Pass out bags of quarters (real or paper) and the "Take a Chance" worksheets (pages 24 and 25). Students may work in groups or as a whole class depending on teacher preference. Have students examine the contents of the bags.
5. Review the process for changing fractions to decimals, decimals to percents, and percents to fractions.
6. As a warm-up, have students determine the probability of pulling the eagle quarter out of the bag. Have students write the outcome as a fraction ($1/8$).
7. Students will complete the "Take a Chance" worksheets (pages 24 and 25).
8. Check worksheet answers for accuracy. Quiz students on concepts learned to verify understanding.



ANSWER KEY:

- | | | |
|-------------------|---------------|---------------|
| 1. $1/8$ | 6. $7/8$ | 1. Likely |
| 2. $7/8$ | 7. $1/8$ | 2. Unlikely |
| 3. $5/8$ | 8. 0 | 3. Certain |
| 4. $2/8$ or $1/4$ | 9. $8/8$ or 1 | 4. Impossible |
| 5. $6/8$ or $3/4$ | 10. $3/8$ | |



ENRICHMENT/EXTENSIONS:

Students can invent a game of chance to play with classmates.

Students can generate a quiz testing the new vocabulary terms/definitions learned in the lesson.

Name _____

Date _____



Take a Chance—Part 1

DIRECTIONS: You are given a bag of eight quarters containing one eagle quarter (made prior to 1999), five new quarters from 1999, and two new quarters minted in 2000. Pulling out one quarter at a time and then returning the quarter to the bag, what would be the probability (in fraction form) of choosing:

 1. An eagle quarter? _____	2. A new quarter? _____	3. A quarter minted in 1999? _____	4. A quarter minted in 2000? _____	5. A quarter minted before 2000? _____
Hint: Remember to reduce fractions.				
6. A quarter minted in 2000 or 1999? _____	7. A quarter minted before 1999? _____	 8. A cent? _____	9. A quarter? _____	10. A quarter not minted in 1999? _____

Fill in the blank with one of the following terms:

Likely, Unlikely, Impossible, Certain

1. The chance of choosing a new quarter:

2. The chance of choosing an eagle quarter:

3. The chance of choosing a quarter:

4. The chance of choosing a cent:

Date _____



Test Trial—Make a Prediction

Now, test your prediction. Toss a quarter 30 times and record how many times it lands on heads and how many times it lands on tails. For each result, color in a block.

	Heads	Tails
10	☐	☐
5	☐	☐
25	☐	☐
10	☐	☐
1	☐	☐
50	☐	☐
Totals:		

Did your prediction come true? Why or why not?

Convert between fractions to decimals to percents in the chart below.

Fraction	Decimal	Percent
		50%
1/5		
	0.75	
3/10		80%



State Information 1999 Quarters

Delaware

The Delaware quarter, depicting the historic horse-back ride of Caesar Rodney, galloped onto the scene as it kicked off the much anticipated U.S. Mint's 50 State Quarters™ Program.

Caesar Rodney was a delegate to the Continental Congress. On July 1, 1776, despite extreme illness, Rodney set off on the 80-mile journey to Philadelphia withstanding thundershowers and a severe summer heat wave. The next day, he arrived at Independence Hall just in time to cast the deciding vote in favor of our nation's independence. This native of Dover has also held more public offices than any other Delaware citizen. In addition to being an extremely dedicated delegate, Rodney was also a soldier, judge, and speaker of Delaware's Assembly.



State Capital: Dover
State Bird: Blue Hen Chicken
State Tree: American Holly
State Flower: Peach Blossom
State Motto: Liberty and
 independence

Entered Union (rank): December 7, 1787 (1)
Nickname: First State
Origin of Name: Named for Lord De La Warr
State Song: "Our Delaware"

Pennsylvania

The Pennsylvania quarter, the second coin in the 50 State Quarters™ Program, depicts the statue "Commonwealth," an outline of the state, the state motto, and a keystone. This design was chosen to further help educate people about the origins of our second state, founded on December 12, 1787.

The statue "Commonwealth," designed by New York sculptor Roland Hinton Perry, is a bronze-gilded 14' 6" high female form that has topped Pennsylvania's state capital dome in Harrisburg,

Pennsylvania, since May 25, 1905. Her right arm extends in kindness and her left arm grasps a ribbon mace to symbolize justice. The image of the keystone honors the state's nickname, "The Keystone State." At a Jefferson Republican victory rally in October 1802, Pennsylvania was toasted as "the keystone in the federal union." The modern persistence of this designation is justified in view of the key position of Pennsylvania in the economic, social, and political development of the United States.



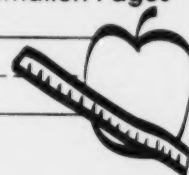
State Capital: Harrisburg
State Bird: Ruffed Grouse
State Tree: Eastern Hemlock
State Flower: Mountain Laurel
State Motto: Virtue, liberty,
 and independence
Entered Union (rank): December 12, 1787 (2)
Nickname: Keystone State
Origin of Name: In honor of Admiral
 Sir William Penn, father of William Penn
State Song: "Pennsylvania"

New Jersey

The New Jersey quarter, the third coin in the 50 State Quarters™ Program, depicts General George Washington and members of the Continental Army crossing the Delaware River en route to very important victories during the Revolutionary War. The design is based on the 1851 painting by Emmanuel Leutze, "Washington Crossing the Delaware."

It was a cold Christmas night in 1776 and the Delaware River was frozen in many places. General George Washington calculated the enemy would not be expecting an assault in this kind of weather. He and his soldiers courageously crossed the Delaware River into Trenton, New Jersey. Using surprise as their greatest weapon, Washington's army captured over 900 prisoners and secured the town. Later that night, his army continued towards Princeton, New Jersey, again taking the enemy by

State Information 1999 Quarters



surprise. These two victories proved very important to his army as they gave the soldiers courage, hope, and newfound confidence. The supplies confiscated from their captives helped them survive the brutal winter of 1777.



State Capital: Trenton

State Bird: Eastern Goldfinch

State Tree: Red Oak

State Flower: Purple Violet

State Motto: Liberty and prosperity

Entered Union (rank): December 18, 1787 (3)

Nickname: Garden State

Origin of Name: From the Isle of Jersey in the English Channel

Georgia

The Georgia quarter, the fourth quarter released under the 50 State Quarters™ Program, is a real peach. The selected design incorporates several symbols associated with this traditional, yet very diverse southern state.

Just from studying the Georgia quarter design, one can learn a lot about the fourth state of the Union. The selected design prominently features the peach—a symbol long associated with the state—within the confines of a silhouetted outline of the state. Live Oak sprigs border the central design paying homage to the official state tree, the Live Oak. And if you ever need to know the Georgia state motto, simply look across the top of the design, where the words "Wisdom, Justice, and Moderation," grace a hanging banner.



State Capital: Atlanta

State Bird: Brown Thrasher

State Tree: Live Oak

State Flower: Cherokee Rose

State Motto: Wisdom, justice, and moderation

Entered Union (rank): January 2, 1788 (4)

Nickname: Empire State of the South

Origin of Name: In honor of King George II of England

State Song: "Georgia on My Mind"

Connecticut

The Connecticut quarter, the last 50 State Quarters™ Program coin issued in 1999, features "The Charter Oak," an important part of Connecticut's heritage and existence. On the night of October 31, 1687, Connecticut's Charter was put to a test. A British representative for King James II challenged Connecticut's government structure and demanded its surrender. In the middle of the heated discussion, with the Charter on the table between the opposing parties, the candles were mysteriously snuffed out, darkening the room. When visibility was reestablished, the Connecticut Charter had vanished. Heroic Captain Joseph Wadsworth saved the Charter from the hands of the British and concealed it in the safest place he could find—in a majestic white oak. This famous tree, "The Charter Oak," finally fell during a great storm on August 21, 1856.



State Capital: Hartford

State Bird: American Robin

State Tree: White Oak

State Flower: Mountain Laurel

State Motto: Qui transtulit sustinet
(He who transplanted still sustains)

Entered Union (rank): January 9, 1788 (5)

Nickname: Constitution State

Origin of Name: From an Indian word, "Quinnehtukqut," meaning "beside the long tidal river" or "long river place"

State Song: "Yankee Doodle"



State Information 2000 Quarters

Massachusetts

Did you know that the design for the Massachusetts quarter was submitted by two fifth-grade students?

The Massachusetts quarter, the first quarter of the new millennium, features a design of "The Minuteman," a famous statue that stands guard at The Minuteman National Historical Park in Concord, Massachusetts.

The selected design captures a piece of the Bay State's exceptional history. The Minutemen played a big role in protecting our nation, as they rallied together to help defeat the British during the Revolutionary War. These small, influential forces consisting of farmers and colonists, were always at-the-ready and were trained to assemble and fight on just a minute's notice—hence the term "minutemen".



State Capital: Boston
State Bird: Chickadee
State Tree: American Elm
State Flower: Mayflower
State Motto: Ense petit placidam sub
 libertate quietem (By the sword we
 seek peace, but peace only under liberty)

Entered Union (rank): February 6, 1788 (6)
Nickname: Bay State
Origin of Name: From Massachusetts tribe of
 Native Americans, meaning "at or about the great hill"
State Song: "All Hail to Massachusetts"

Maryland

The Maryland quarter, the second in the Year 2000 series, highlights the striking dome of the Maryland Statehouse.

Through its new quarter, our seventh state shares its pride for the honored Maryland Statehouse. A distinctive building dating back to 1772, it features the country's largest wooden dome built without nails. Besides housing Maryland's colonial

legislature, it was also crucial to our national history. From 1783-1784, the Maryland Statehouse served as the nation's first peacetime capital. The Treaty of Paris was ratified here, officially ending the Revolutionary War. A treasure preserved, the Statehouse continues as the country's oldest state capital building still in legislative use.

Leaf clusters from the official state tree, the White Oak, and the nickname the Old Line State complete the selected design. Maryland is nicknamed the Old Line State in honor of its "troops of the line." These troops won praise from George Washington, who was Commander-in-Chief of the Continental Army during the Revolutionary War.



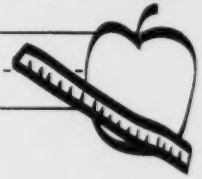
State Capital: Annapolis
State Bird: Baltimore Oriole
State Tree: White Oak
State Flower: Black-Eyed Susan
State Motto: Fatti maschii, parole
 femine (Manly deeds, womanly words)
Entered Union (rank): April 28, 1788 (7)
Nickname: Old Line State
Origin of Name: In Honor of Queen
 Henrietta Maria (wife of King Charles I of England)
State Song: "Maryland! My Maryland!"

South Carolina

The South Carolina quarter, the eighth coin released under the 50 State Quarters™ Program, shows key state symbols—a Palmetto Tree, the Carolina Wren, and the Yellow Jessamine. The Palmetto Tree represents South Carolina's strength. The Carolina Wren's song symbolizes the hospitality of the state's people. The Yellow Jessamine, a delicate golden bloom—a sign of coming spring—is part of South Carolina's vast natural beauty. An outline of South Carolina, and a star indicating the capital, Columbia, form the quarter's background.

The Carolina Wren, the state bird, and the Yellow Jessamine, the state flower, are native throughout South Carolina. The importance of the Palmetto Tree, the state tree, dates back to the Revolutionary

State Information 2000 Quarters



War. In 1776, colonists in a small fort built of Palmetto logs successfully defeated a British fleet trying to capture Charleston Harbor. Since then, South Carolina has been called "The Palmetto State."



State Capital: Columbia
State Bird: Carolina Wren
State Tree: Palmetto
State Flower: Yellow Jessamine
State Mottoes: ... Animis opibusque parati
 (Ready in soul and resource) and Dum
 spiro spero (While I breathe, I hope)

Entered Union (rank): May 23, 1788 (8)

Nickname: Palmetto State

Origin of Name: In honor of King
 Charles I of England

State Songs: "Carolina" and "South Carolina
 on My Mind"

New Hampshire

The New Hampshire quarter, the ninth coin released under the 50 State Quarters™ Program, honors one of the state's most unique natural attractions, "The Old Man of the Mountain." The state's motto, "Live free or die," and nine stars, representing New Hampshire being the ninth state to ratify the Constitution, complete the design.

"The Old Man of the Mountain" is a rock formation that can be found on Mt. Cannon in the Franconia Notch gateway to Northern New Hampshire. From the right view, this unique rock formation, comprised of five layers of Conway red granite, depicts the distinct profile of an elderly man gazing eastward. Geographers believe that the layers of granite were positioned by the melting and slipping away action of an ice sheet that covered the Franconia Mountains at the end of the glacial period—some 2,000 to 10,000 years ago. Today, the formation, measuring over 40 feet high with a lateral distance of 25 feet, is held in place by cables and turnbuckles to prevent further slipping and possible destruction.



State Capital: Concord

State Bird: Purple Finch

State Tree: Paper Birch

State Flower: Purple Lilac

State Motto: Live free or die

Entered Union (rank): ... June 21, 1788 (9)

Nickname: Granite State

Origin of Name: From the English
 county of Hampshire

State Song: "Old New Hampshire"

Virginia

The Virginia quarter, the tenth coin released under the 50 State Quarters™ Program, honors our nation's oldest colony, Jamestown, Virginia. Jamestown turns 400 years old in 2007. The selected design features the three ships, Susan Constant, Godspeed, and Discovery. These ships brought the first English settlers to Jamestown.

On April 10, 1606, King James I of England chartered the Virginia Company to encourage colonization in the New World. The first expedition, consisting of the three ships depicted on the quarter, embarked from London on December 20, 1606. On May 12, 1607, they landed on a small island along the James River nearly 60 miles from the mouth of the Chesapeake Bay. It was here the original settlers (104 men and boys) established the first permanent English settlement called Jamestown, in honor of King James I.



State Capital: Richmond

State Bird: Cardinal

State Tree: Dogwood

State Flower: Dogwood

State Motto: Sic semper tyrannis
 (Thus always to tyrants)

Entered Union (rank): June 25, 1788 (10)

Nickname: The Old Dominion

Origin of Name: In honor of Queen
 Elizabeth I, the "Virgin Queen" of England

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State	Capital
Alabama	Montgomery
Alaska	Juneau
Arizona	Phoenix
Arkansas	Little Rock
California	Sacramento
Colorado	Denver
Connecticut	Hartford
Delaware	Dover
Florida	Tallahassee
Georgia	Atlanta

State	Capital
Hawaii	Honolulu
Idaho	Boise
Illinois	Springfield
Indiana	Indianapolis
Iowa	Des Moines
Kansas	Topeka
Kentucky	Frankfort
Louisiana	Baton Rouge
Maine	Augusta
Maryland	Annapolis

State	Capital
Massachusetts	Boston
Michigan	Lansing
Minnesota	St. Paul
Mississippi	Jackson
Missouri	Jefferson City
Montana	Helena
Nebraska	Lincoln
Nevada	Carson City
New Hampshire	Concord
New Jersey	Trenton

State	Capital
New Mexico	Santa Fe
New York	Albany
North Carolina	Raleigh
North Dakota	Bismarck
Ohio	Columbus
Oklahoma	Oklahoma City
Oregon	Salem
Pennsylvania	Harrisburg
Rhode Island	Providence
South Carolina	Columbia

State	Capital
South Dakota	Pierre
Tennessee	Nashville
Texas	Austin
Utah	Salt Lake City
Vermont	Montpelier
Virginia	Richmond
Washington	Olympia
West Virginia	Charleston
Wisconsin	Madison
Wyoming	Cheyenne



33

34

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1999

2000



2000

1999





THE UNITED STATES MINT 50 STATE QUARTERS™ PROGRAM

Release Year	Statehood Date
1999	
Delaware	December 7, 1787
Pennsylvania	December 12, 1787
New Jersey	December 18, 1787
Georgia	January 2, 1788
Connecticut	January 9, 1788

2000	
Massachusetts	February 6, 1788
Maryland	April 28, 1788
South Carolina ...	May 23, 1788
New Hampshire ...	June 21, 1788
Virginia	June 25, 1788

2001	
New York	July 26, 1788
North Carolina ...	November 21, 1789
Rhode Island	May 29, 1790
Vermont	March 4, 1791
Kentucky	June 1, 1792

2002	
Tennessee	June 1, 1796
Ohio	March 1, 1803
Louisiana	April 30, 1812
Indiana	December 11, 1816
Mississippi	December 10, 1817

2003	
Illinois	December 3, 1818
Alabama	December 14, 1819
Maine	March 15, 1820
Missouri	August 10, 1821
Arkansas	June 15, 1836

Release Year	Statehood Date
2004	
Michigan	January 26, 1837
Florida	March 3, 1845
Texas	December 29, 1845
Iowa	December 28, 1846
Wisconsin	May 29, 1848

2005	
California	September 9, 1850
Minnesota	May 11, 1858
Oregon	February 14, 1859
Kansas	January 29, 1861
West Virginia	June 20, 1863

2006	
Nevada	October 31, 1864
Nebraska	March 1, 1867
Colorado	August 1, 1876
North Dakota	November 2, 1889
South Dakota	November 2, 1889

2007	
Montana	November 8, 1889
Washington	November 11, 1889
Idaho	July 3, 1890
Wyoming	July 10, 1890
Utah	January 4, 1896

2008	
Oklahoma	November 16, 1907
New Mexico	January 6, 1912
Arizona	February 14, 1912
Alaska	January 3, 1959
Hawaii	August 21, 1959



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